

CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES

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## 2. PREAMBLE

- a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."
- b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

## 3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

- a. ISSUED TO (Name and Address)  
Framatome ANP, Inc.  
P.O. Box 11646  
Lynchburg, VA 24506-1646
- b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION  
Framatome Cogema Fuels application  
dated January 20, 2006.

## 4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

## 5.

## (a) Packaging

- (1) Model No.: DHTF
- (2) Description

The packaging consists of a 14-gauge stainless steel containment vessel, 9.5 inches by 9.5 inches by 17.5 inches high, with a bolted and gasketed top flange closure and stainless steel welded bottom plate. The containment vessel is centered and supported in a steel drum by industrial cane fiberboard of  $16.5 \pm 2$  lbs/ft<sup>3</sup> density.

Closure of the containment vessel is maintained by a 3/8-inch thick carbon steel lid and 1/8-inch thick silicone rubber gasket secured with eight, 3/8-16NC by 1-1/2 long hex bolts and nuts. The 16-gauge steel outer drum is approximately 34 inches high and 22.5 inches in diameter. The drum closure is a 16-gauge lid with a 12-gauge bolt locking ring with drop forged lugs, one of which is threaded, having a 5/8-inch diameter bolt and lock nut.

The gross weight of the packaging and contents is 490 pounds.

## (3) Drawings

The packaging is constructed and assembled in accordance with Framatome Cogema Fuels Drawing Nos. 1249874E, Rev. 5; 1259100C, Rev. 0; 1259101C, Rev. 0; and 1215600D, Rev. 6.

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## 5.(b) Contents

### (1) Type and form of material

Dry uranium oxide solid pellets, annular pellets, or scrap, packaged either on trays or bagged, as shown in Framatome Cogema Fuels 1215600D, Rev. 6.

- (i) Solid pellets on stainless steel trays. The minimum pellet diameter is 0.315 inch and the maximum pellet diameter is 0.4075 inch.
- (ii) Bagged solid pellets or scrap, or any combination. The maximum pellet diameter is 0.4075 inch.
- (iii) Bagged solid pellets or scrap, or any combination. The maximum pellet diameter is 0.375 inch.
- (iv) Bagged annular pellets. The minimum pellet diameter is 0.291 inch and the maximum pellet diameter is 0.304 inch, with an annulus from 0.045 to 0.065 inch in diameter.

### (2) Maximum quantity of material per package

The maximum weight of contents and all packaging materials within the inner container is 275 lbs. The maximum quantity of polyethylene is 149 grams per pellet box.

- (i) For the contents described in Item 5(b)(1)(i), enrichment and fissile quantities are limited as follows:

<u>Max. Enrichment</u> <u>(wt % U-235)</u>	<u>Max. UO<sub>2</sub></u> <u>mass (kg)</u>	<u>Max. U-235</u> <u>mass (kg)</u>	<u>Max. Number</u> <u>Pellet Boxes</u>
5.0	112	4.83	4

- (ii) For the contents described in Item 5(b)(1)(ii), enrichment and fissile quantities are limited as follows:

<u>Max. Enrichment</u> <u>(wt % U-235)</u>	<u>Max. UO<sub>2</sub></u> <u>mass (kg)</u>	<u>Max. U-235</u> <u>mass (kg)</u>	<u>Max. Number</u> <u>Pellet Boxes</u>
5.0	84	3.62	3

- (iii) For the contents described in Item 5(b)(1)(iii), enrichment and fissile quantities are limited as follows:

<u>Max. Enrichment</u> <u>(wt % U-235)</u>	<u>Max. UO<sub>2</sub></u> <u>mass (kg)</u>	<u>Max. U-235</u> <u>mass (kg)</u>	<u>Max. Number</u> <u>Pellet Boxes</u>
3.85	112	3.72	4

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5.(b) (2) Maximum quantity of material per package (Continued)

- (iv) For the contents described in Item 5(b)(1)(iv), enrichment and fissile quantities are limited as follows:

Max. Enrichment (wt % U-235)	Max. UO <sub>2</sub> mass (kg)	Max. U-235 mass (kg)	Max. Number Pellet Boxes
5.0	84	3.55	3
3.75	112	3.55	4

(c) Criticality Safety Index 1.2

6. Each package must have a stainless steel plate (spacer) positioned between pellet boxes, as shown on Framatome Cogema Fuels Drawing No. 1249874E, Rev. 5.
7. For packages containing fewer than four loaded pellet boxes, solid aluminum spacer blocks, as shown on Framatome Cogema Fuels Drawing No. 1259100C, Rev. 0, must be substituted for all missing boxes.
8. For contents described in Item 5(b)(1)(i) and limited in Item 5(b)(2)(i), stainless steel trays must be positioned between each layer of pellets, and on the top and bottom of the pellet stack. Additional trays must be inserted in partially filled pellet boxes to provide a snug fit.
9. In addition to the requirements of Subpart G of 10 CFR Part 71:
- (a) Prior to each shipment the containment vessel gasket must be inspected. The gasket must be replaced if the inspection shows any defects or signs of degradation.
  - (b) The package must be prepared for shipment and operated in accordance with the Operating Procedures of Chapter 7 of the application, as supplemented.
  - (c) Each packaging must meet the Acceptance Tests and Maintenance Program of Chapter 8 of the application, as supplemented October 29, 1999.
10. The eight, 3/8-inch containment vessel bolts must be torqued to 35 ft-lbs  $\pm$  10% and the 5/8-inch closure ring bolt and lock nut must be torqued to 70 ft-lbs  $\pm$  10%. Immediately following each loading of a package, the closure ring must be inspected to assure it is fully seated (engaged).
11. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.
12. Revision No. 13 of this certificate may be used until January 31, 2007.
13. Expiration date: February 28, 2011.

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REFERENCES

Framatome Cogema Fuels applications dated October 5, 2005, and January 20, 2006.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION



Robert A. Nelson, Chief  
Licensing Section  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

Date: January 27, 2006





UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION REPORT

Docket No. 71-9203

Model No. DHTF Package

Certificate of Compliance No. 9203

Revision No. 14

SUMMARY

By application dated October 5, 2005, as supplemented January 20, 2006, Framatome ANP (FANP or the applicant) requested a renewal and an amendment to Certificate of Compliance No. 9203, for the Model No. DHTF package. The applicant submitted a consolidated application for the package. Minor changes were made throughout the certificate to revise wording and to update references to the regulations. FANP did not request any changes to the package design or authorized contents. The certificate has been renewed for a five year term.

EVALUATION

FANP requested a renewal and amendment of Certificate of Compliance No. 9203 for the Model No. DHTF package on October 5, 2005. In support of the renewal request, FANP provided a consolidated application on January 20, 2006, as specified in 10 CFR 71.38(c). The staff reviewed the consolidated application and concluded that the application incorporated the changes to the Safety Analysis Report that were previously referenced in the Certificate of Compliance. The amendment request was to correctly reference the latest revision number of Drawing No. 1249874E on the certificate. Condition No. 6 was revised to reflect this change. FANP did not request any changes to the package design or authorized contents.

Condition No. 5(c) of the certificate was revised to delete the wording "Transport Index for Criticality Control" and "Minimum transport index to be shown on label for nuclear criticality control." The deleted wording was replaced with "Criticality Safety Index" as defined in 10 CFR 71.4.

Condition No. 11 clarifies that the package is approved for use under the general license provisions of 10 CFR 71.17. This change is due to a revision in the numbering of the section in 10 CFR Part 71, which became effective on October 1, 2004 (69 FR 3698).

The certificate was revised to include Condition No. 12, which authorizes use of the previous revision of the certificate for a period of approximately one year.

The staff reviewed the documents referenced in the certificate and determined that the documentation was available and complete.

CONCLUSION

The certificate has been renewed for a five year term that expires on February 28, 2011. This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9203, Revision No. 14,  
on January 27, 2006.